6th Grade Science
2015-2016 School Year

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6th Grade Science: Question, Explore, Observe, Discover

Welcome to 6th Grade Science! This class is one of discovery and inquiry. We will use frequent discussions and hands on activities to become better observers of the world around us. We will explore a variety of topics through structured labs, active explorations, and critical research.

Objectives

In this class, you will learn to think and act like Scientists. This class is not about memorizing facts. It is about "doing Science". We will ask questions and work together to investigate the answers. We will design experiments to discover how the world around us functions. We will also analyze the tough, controversial issues in Science in order to be able to make informed decisions. These skills of questioning and critically thinking are not only useful in the realm of science, but in all aspects of being a knowledgeable and curious adult.

Essential Questions

Throughout the year, we will be working to answer two essential questions. We will begin discussing these questions in August and will return to them frequently.

1. How do you conduct scientific inquiry?
2. How are scientific processes related?

Units

In 6th grade, Science is a survey class, meaning we will explore many different topics within the scientific disciplines. Here are some of the unit questions we will be asking throughout the course:

- How is an ecosystem interdependent?
- What can we do to improve our local ecosystem?
- How can we differentiate between a physical and a chemical change?
- How do physical and chemical properties and changes impact our daily lives?
- Why do I look and act as I do?
- What can happen when DNA is changed?
- How can we use electricity and magnetism?
- How do we perceive our world?
- How are the behaviors of light and sound similar/different?
- What factors have worked to shape the face of the Earth?
- How has the Earth changed over time?

Classroom Expectations

The number one expectation in my classroom is RESPECT. You are expected to respect yourselves, each other, the materials, and the teacher. During the first week of school, we will be discussing how we show respect in the science classroom.

Science is about inquiry. You are encouraged and expected to ask questions. If you have a question, chances are someone else is thinking it too.

In addition to learning new concepts, you will also learn how to "do science". This includes cooperating and collaborating within lab groups. For everyone's safety, I ask that you *review and sign the attached Flinn Scientific Student Safety Contract*.

What to Bring to Class

Required Daily:

- 1 Blue Notebook for class notes
- 1 Blue Pocket Folder for handouts
- Sharpened Pencil or Pen (blue or black ink only)
- Washington Latin Planner

Optional and helpful:

- Glue Stick, Tape, Scissors, Colored Pencil/Markers/Crayons/Pens, Headphones/Earbuds

In addition, students will be allowed to use their own electronic devices (phones, tablets, etc) in order to facilitate lab work and observations. Students using devices in class are expected to follow all the rules of acceptable use and to use the device for educational purposes only. Misuse of personal devices will result in confiscation and referral to the Dean of Students.

Online Work

In Science, we will be working toward a classroom using minimal paper. Students will use their school email address and Google Drive for completing homework, maintaining a lab notebook, and to keep a blog-style portfolio to reflect on their progress. We will be setting up these pages during class, but students will be expected to access them outside of classroom hours. Thanks to our school's computer resources, students who do not have access at home can stay after school or use elective time to work on these assignments.

We will also be using Schoology, an online learning system. This system will allow students to access and submit assignments, collaborate with peers, answer questions, and participate in online discussions. We will create student accounts during the first week of school. Parents and guardians are also encouraged to create parent accounts. Please email Ms. Dobler (tdobler@latinpcs.org) if you are interested in directions for creating a parent account.

Coursework

Missions: We will be working within a unit-based mastery learning framework for coursework. Students will have a choice in some assignments to complete or specific topics to explore. They also have the option to rework assignments to demonstrate further learning. Each unit is broken into several missions. Students will receive a tracking sheet for the mission, which outlines the goals and task options. Tasks include a mix of individual, partner, and team work. Each mission will last 1-2 weeks. After the end date, students are no longer able to earn credit on this work.

> **XP**: Each mission task will be worth a determined number of points. The total number of points students earn will determine their coursework grade for the mission. Students and parents can view current XP for a mission in the Schoology gradebook. At the end of each mission, the total XP earned will be entered into Powerschool.

Team Challenges: In each unit, students will work on in-class collaborative assignments. These assignments will often span multiple days in class and will have a set due date, announced in class and posted on the wikispace in advance.

Assessment

Assessment will include both written tests/quizzes and projects that will span multiple days. Assessment dates will be clearly noted and communicated through the wikispace and in class. Late projects will lose 10 percent per day. After five days, late projects are no longer accepted. Assessments are graded on a percentage scale. There are no corrections on assessments.

Grading Policy

Unit Assessments	25%	(One per unit, approximately two per quarter)
Smaller Assessments	25%	(Quizzes, mini-projects)
Coursework-Missions	20%	(Homework and Classwork)
Coursework-Challenges	15%	(In Class Team Assignments)
Participation	15%	

Participation

Participation is a HUGE part of science class. In order to truly learn, you will need to participate in discussions and explorations. This is why participation is graded. I will be tracking your participation and you will get the opportunity to rate your own participation. Participation includes being prepared for class and actively engaging in discussions, investigations, and other activities.

Each day you can earn up to 10 participation points:

- 1: On Time
- 1: In Uniform
- 1: Enter Quietly
- 1: Have All Supplies
- 2: Do Now
- 0-4: Daily Participation in Classroom Activities

Absences

You are responsible for all work missed during any period of absence or tardiness. It is your responsibility to seek out and complete the work. Please be proactive about checking the wikispace, asking a responsible classmate, or sending me an email if you are not in class.

- If your absence was excused, you will be able to make up missed work without penalty. Please get the missed work turned in as quickly as possible.
- If you know ahead of time that you are going to miss science class (ex. a dentist appointment scheduled weeks in advance), you should make arrangements to get your work to me ahead of time. Also, ask a classmate if you can copy the notes when you return so that you do not miss out on key terms and concepts.

How to Get Help

The best way to get help is to just ask. This class will be rigorous and challenging at times. Feel free to ask questions before, during, or after class. I will also be after school during the tutorial period from 3:15-3:45 for students seeking more individualized help. If these times do not work, please let me know and we can make an appointment.

In addition, before tests, quizzes, and large projects, longer after school review sessions will be held. These will be announced in advance both in class and on the wikispace.

If you or your parents have any questions, comments, or concerns at any time throughout the school year, feel free to send me an email at tdobler@latinpcs.org.

Donors Choose

As you likely know, “doing” science requires materials. Thus, I frequently use the website donorschoose.org to write grants for donations of materials. Part of the agreement is that the donator receives pictures of the students using the supplies and thank you notes from students. Therefore, you are also asked to *review and sign the attached Photography Permission Slip*. If you are not comfortable with your child being included in the thank you notes, please indicate this on the form when you return it. If you are interested in viewing the site or my page, please visit: donorschoose.org/dobler

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